

WHAT IS CLAIMED IS:

1. A method for receiving frames at a gateway device, comprising:
receiving a frame at a metro ethernet gateway coupled to a metro ethernet
network and an external network, the frame having an outer tag value identifying a
customer site in a metro ethernet network, an inner tag value, an ethernet packet header,
5 and an ethernet packet payload;
determining that the inner tag value identifies a service provisioned for the
customer site; and
replacing the outer tag and the inner tag with one or more identifiers for
10 transmission onto the external network.
2. The method of claim 1, wherein determining that the inner tag identifies
a service provisioned for the customer comprises determining if the inner tag has a
reserved value.
3. The method of claim 1, wherein the external network is an ATM
15 network.
4. The method of claim 3, wherein the inner tag value identifies a service
provisioned for the customer and a virtual circuit associated with an ATM network.
5. The method of claim 4, wherein the one or more identifiers are used to
specify the virtual circuit.
- 20 6. The method of claim 1, wherein the external network is an IP network.
7. The method of claim 6, wherein the inner tag value identifies a
provisioned IP network service.
8. The method of claim 7, wherein the outer tag and the inner tag are
replaced with one or more identifiers for tunneling to an IP network.
- 25 9. The method of claim 1, wherein the metro ethernet network is a
multiport layer 2 virtual private network.
10. The method of claim 1, wherein the inner tag and outer tag are QinQ
tags.
11. A gateway device, comprising:
30 an external network interface coupled to an external network;
a metro ethernet network interface coupled to a metro ethernet network, the
interface configured to receive a frame from the metro ethernet network, the frame
having an outer tag value, an inner tag value, an ethernet packet header, and an ethernet

packet payload, wherein the outer tag value identifies a customer site in the metro ethernet network; and

5 a processor operable to determine that the inner tag value identifies a service provisioned for the customer site and to replace the outer tag and the inner tag with one or more identifiers for transmission onto the external network.

12. The gateway device of claim 11, wherein determining that the inner tag identifies a service provisioned for the customer comprises determining if the inner tag has a reserved value.

10 13. The gateway device of claim 11, wherein the external network is an ATM network.

14. The gateway device of claim 13, wherein the inner tag value identifies a service provisioned for the customer and a virtual circuit associated with an ATM network.

15 15. The gateway device of claim 14, wherein the one or more identifiers are used to specify the virtual circuit.

16. The gateway device of claim 11, wherein the external network is an IP network.

17. The gateway device of claim 16, wherein the inner tag value identifies a provisioned IP network service.

20 18. The gateway device of claim 17, wherein the outer tag and the inner tag are replaced with one or more identifiers for tunneling to an IP network.

19. The gateway device of claim 11, wherein the metro ethernet network is a multiport layer 2 virtual private network.

25 20. The gateway device of claim 11, wherein the inner tag and outer tag are QinQ tags.

21. A network node, comprising:

means for receiving a frame at the network node coupled to a metro ethernet network and an external network, the frame having an outer tag value identifying a customer site in a metro ethernet network, an inner tag value, an ethernet packet header, and an ethernet packet payload;

30

means for determining that the inner tag value identifies a service provisioned for the customer site; and

means for replacing the outer tag and the inner tag with one or more identifiers for transmission onto the external network.

22. The network node of claim 21, wherein determining that the inner tag identifies a service provisioned for the customer comprises determining if the inner tag
5 has a reserved value.

23. A computer readable medium comprising computer code for receiving frames at a gateway device, the computer readable medium comprising:

computer code for receiving a frame at a metro ethernet gateway coupled to a metro ethernet network and an external network, the frame having an outer tag value
10 identifying a customer site in a metro ethernet network, an inner tag value, an ethernet packet header, and an ethernet packet payload;

computer code for determining that the inner tag value identifies a service provisioned for the customer site; and

computer code for replacing the outer tag and the inner tag with one or more
15 identifiers for transmission onto the external network.

24. The computer readable medium of claim 23, wherein determining that the inner tag identifies a service provisioned for the customer comprises determining if the inner tag has a reserved value.